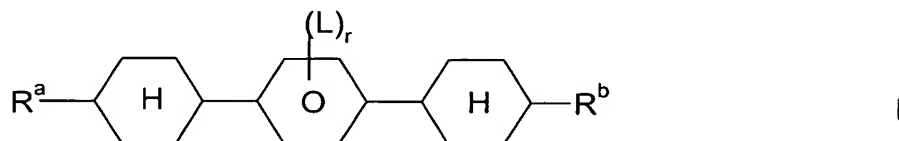


This listing of claims will replace all prior versions, and listings, of claims in the application:


**Listing of Claims:**

Claim 1 (original): A liquid-crystalline medium, comprising two or more liquid crystal compounds wherein at least one compound is of formula I



wherein

$R^a$  is an alkenyl group having from 2 to 9 carbon atoms,

$R^b$  is an alkyl group having 1 to 12 carbon atoms which is unsubstituted, monosubstituted by CN or  $CF_3$  or at least monosubstituted by halogen, and wherein one or more  $CH_2$  groups are each, independently of one another, optionally replaced by -O-, -S-, , -CH=CH-, -C≡C-, -CO-, -CO-O-, -O-CO- or -O-CO-O- in such a way that O atoms are not linked directly to one another,

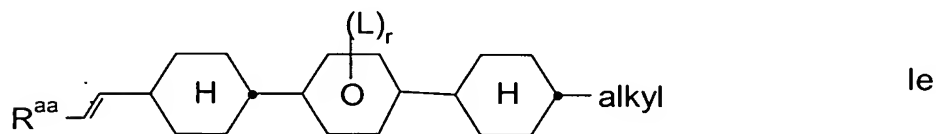
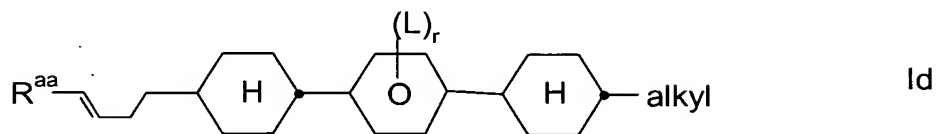
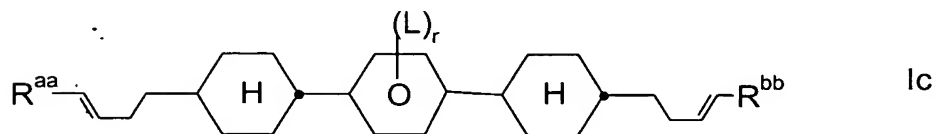
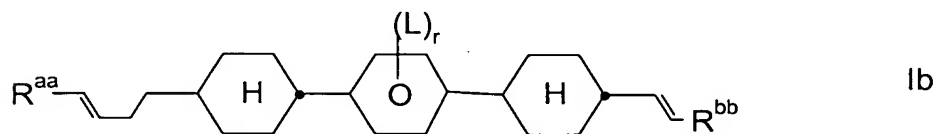
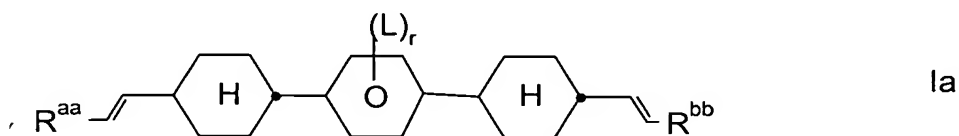
L is, in each occurrence independently, F, Cl, CN or an optionally mono- or polyhalogenated alkyl, alkoxy, alkenyl or alkenyloxy group having up to 3 carbon atoms, and

r is 0, 1, 2, 3 or 4.

Claim 2 (original): A liquid-crystalline medium according to claim 1, wherein said medium comprises at least one compound of formula I in which the phenyl ring is substituted by L in 2- and 3-position or in 3- and 5-position or in 2- and 6-position, and/or  $R^b$  is alkenyl with 2 to 9 carbon atoms.

Claim 3 (currently amended): A liquid-crystalline medium according to claim 1 or 2, wherein said medium comprises at least one compound of formula I wherein L is F, Cl, CN, CF<sub>3</sub>, OCF<sub>3</sub> or OCH<sub>3</sub>.

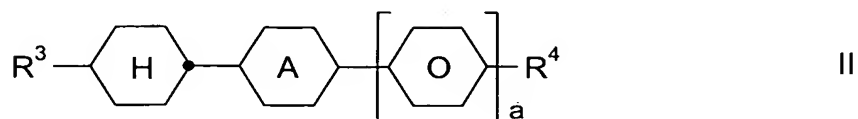
Claim 4 (currently amended): A liquid-crystalline medium according to ~~at least one of claims 1 to 3~~ claim 1, wherein said medium comprises at least one compound of formula I selected from the following formulae



wherein R<sup>aa</sup> and R<sup>bb</sup> are independently of each other H, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub> or n-C<sub>3</sub>H<sub>7</sub> and alkyl is an alkyl group with 1 to 8 carbon atoms.

Claim 5 (currently amended): A liquid-crystalline medium according to at least

~~one of claims 1 to 4~~ claim 1, wherein said medium comprises at least one compound of formula II



in which

A is 1,4-phenylene or trans-1,4-cyclohexylene,

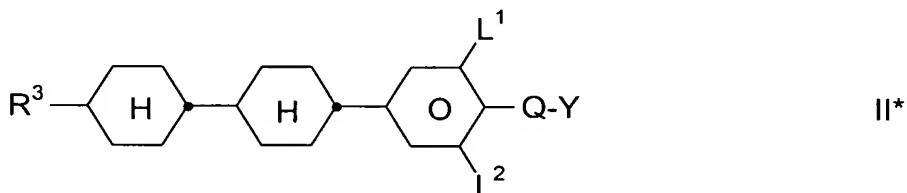
a is 0 or 1,

R³ is an alkenyl group having from 2 to 9 carbon atoms, and

R⁴ is an alkyl group having 1 to 12 carbon atoms which is unsubstituted, monosubstituted by CN or CF₃ or at least monosubstituted by halogen, and wherein one or more CH₂ groups are each, independently of one another, optionally replaced by -O-, -S-, , -CH=CH-, -C≡C-, -CO-, -CO-O-, -O-CO- or -O-CO-O-

in such a way that O atoms are not linked directly to one another.

Claim 6 (currently amended): A liquid-crystalline medium according to ~~at least one of claims 1 to 5~~ claim 1, wherein said medium comprises at least one compound of formula II\*



wherein

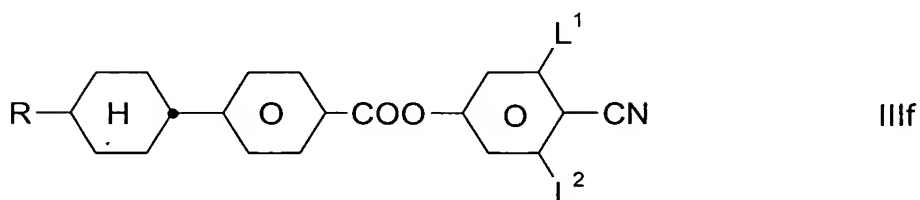
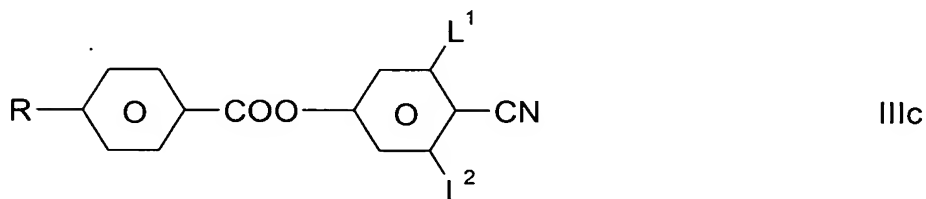
R<sup>3</sup> is an alkenyl group with 2 to 7 carbon atoms,

Q is CF<sub>2</sub>, OCF<sub>2</sub>, CFH, OCFH or a single bond,

Y is F or Cl, and

L<sup>1</sup> and L<sup>2</sup> are independently of each other H or F.

Claim 7 (currently amended): A liquid-crystalline medium according to ~~at least one of claims 1 to 5~~ claim 1, wherein said medium comprises at least one compound selected from the following formulae



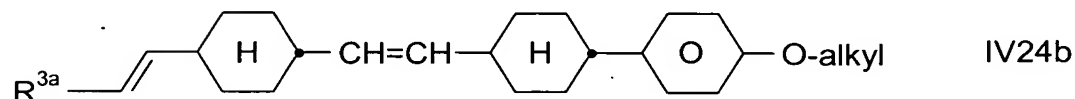
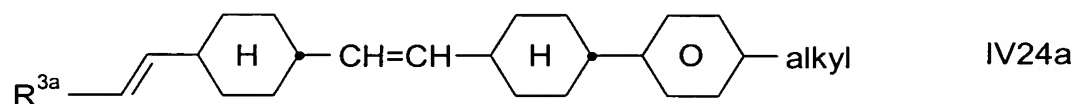
wherein

R is an alkyl, alkoxy or alkenyl group having from 1 to 12 carbon atoms, wherein one or more CH<sub>2</sub> groups are each, independently of one another, optionally replaced by -O-, -CH=CH-, -CO-, -OCO- or

-COO- in such a way that O atoms are not linked directly to one another,  
and

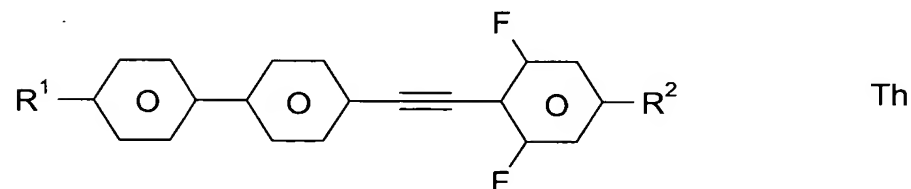
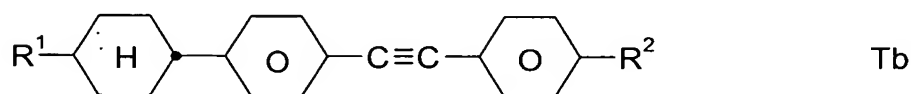
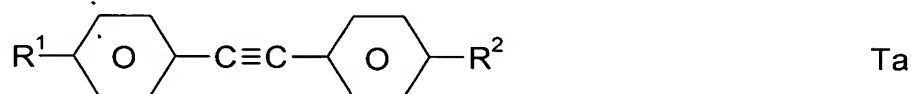
$L^1$  and  $L^2$  are independently of each other H or F.

Claim 8 (currently amended): A liquid-crystalline medium according to ~~at least one of claims 1 to 7~~ claim 1, wherein said medium comprises at least one compound selected from the following formulae



wherein  $R^{3a}$  is H,  $\text{CH}_3$ ,  $\text{C}_2\text{H}_5$  or  $n\text{-C}_3\text{H}_7$  and alkyl is an alkyl group with 1 to 8 carbon atoms.

Claim 9 (currently amended): A liquid-crystalline medium according to ~~at least one of claims 1 to 8~~ claim 1, wherein said medium comprises at least one compound selected from the following formulae

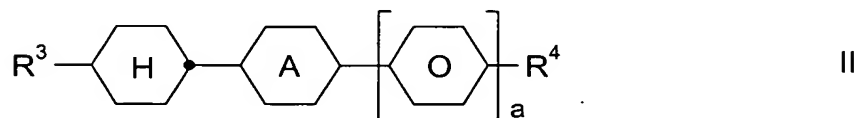


wherein

$R^1$  and  $R^2$  are independently of each other an alkyl, alkoxy or alkenyl group having from 1 to 12 carbon atoms, wherein one or more  $\text{CH}_2$  groups are each, independently of one another, optionally replaced by  $-\text{O}-$ ,  $-\text{CH}=\text{CH}-$ ,  $-\text{CO}-$ ,  $-\text{OCO}-$  or  $-\text{COO}-$  in such a way that O atoms are not linked directly to one another.

Claim 10 (currently amended): A liquid-crystalline medium according to ~~at least one of claims 1 to 9~~ claim 1, wherein said medium comprises:

- one or more compounds of formula I;
- one or more compounds selected from formulae II,

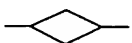


in which

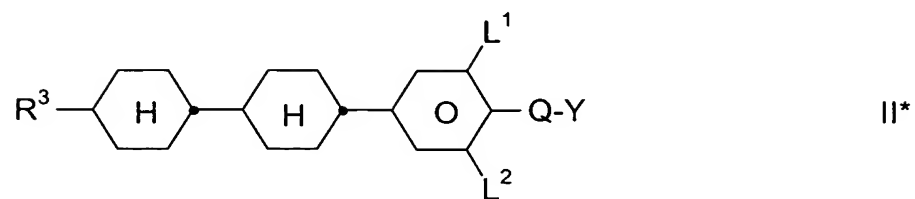
A is 1,4-phenylene or trans-1,4-cyclohexylene,

a is 0 or 1,

$R^3$  is an alkenyl group having from 2 to 9 carbon atoms, and

$R^4$  is an alkyl group having 1 to 12 carbon atoms which is unsubstituted, monosubstituted by CN or  $\text{CF}_3$  or at least monosubstituted by halogen, and wherein one or more  $\text{CH}_2$  groups are each, independently of one another, optionally replaced by  $-\text{O}-$ ,  $-\text{S}-$ , ,  $-\text{CH}=\text{CH}-$ ,  $-\text{C}\equiv\text{C}-$ ,  $-\text{CO}-$ ,  $-\text{CO}-\text{O}-$ ,  $-\text{O}-\text{CO}-$  or  $-\text{O}-\text{CO}-\text{O}-$  in such a way that O atoms are not linked directly to one another;

- optionally one or more compounds of formula II\*,



wherein

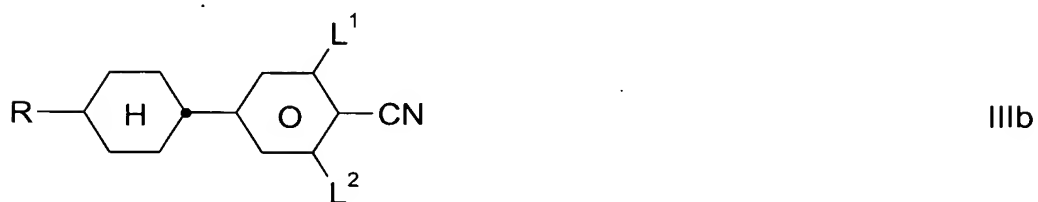
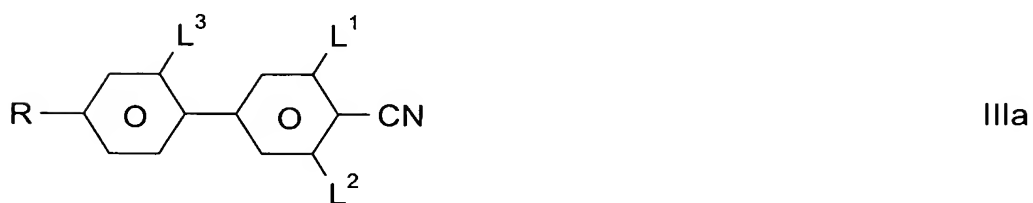
R<sup>3</sup> is an alkenyl group with 2 to 7 carbon atoms,

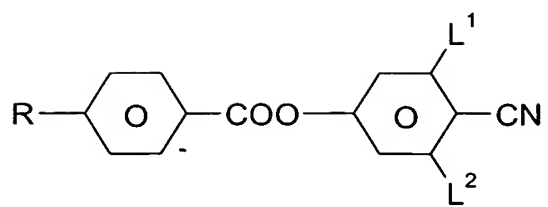
Q is CF<sub>2</sub>, OCF<sub>2</sub>, CFH, OCFH or a single bond,

Y is F or Cl, and

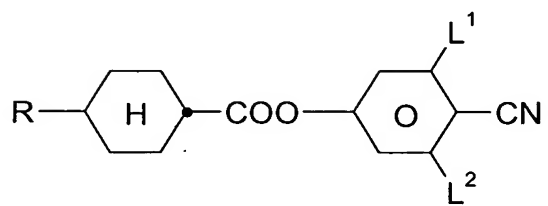
L<sup>1</sup> and L<sup>2</sup> are independently of each other H or F;

- one or more compounds selected from formulae IIIa-IIIh,

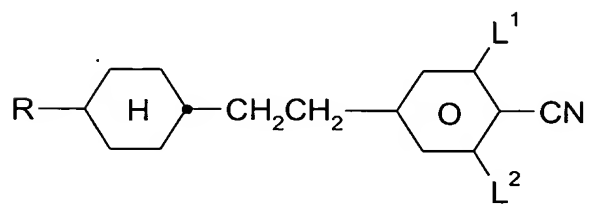




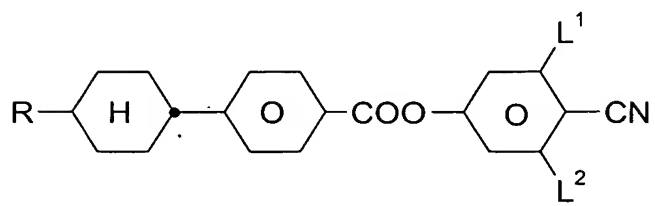
IIIc



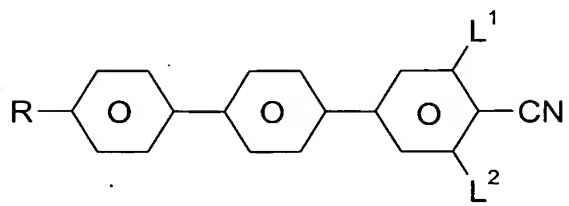
IIIld



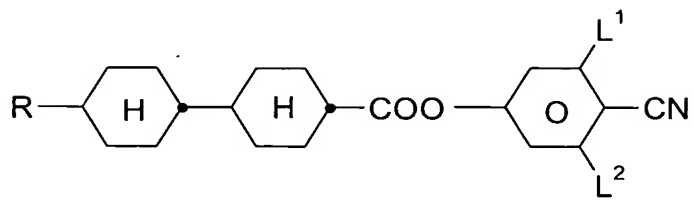
IIIle



IIIlf



IIIlg



IIIlh

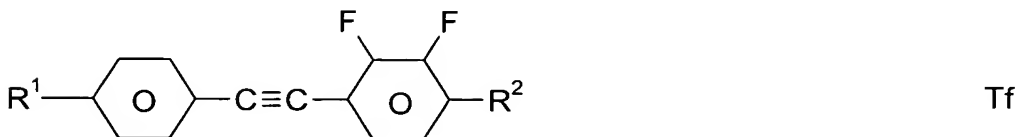
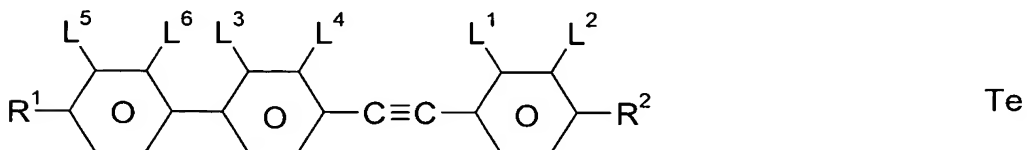
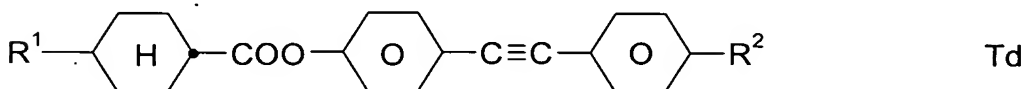
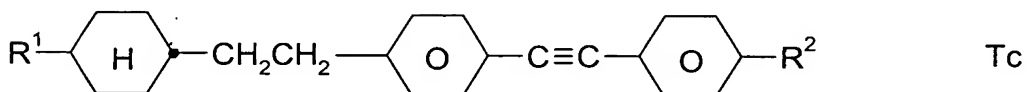
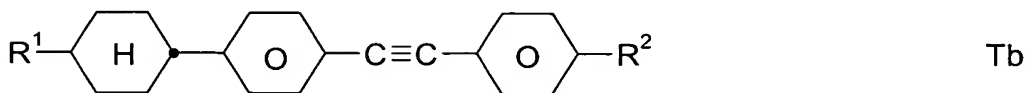
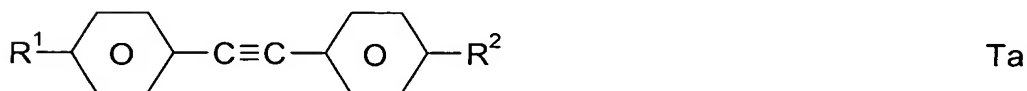
wherein

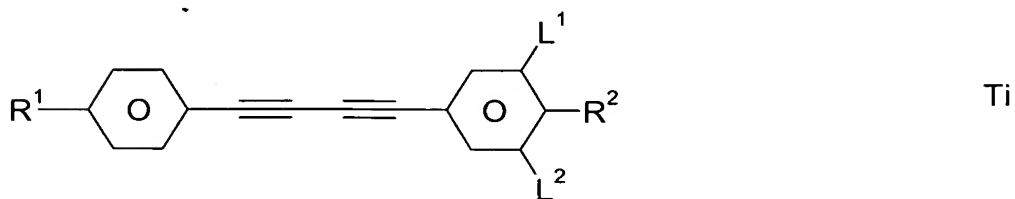
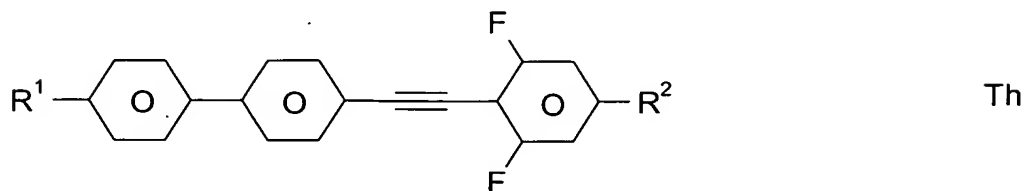
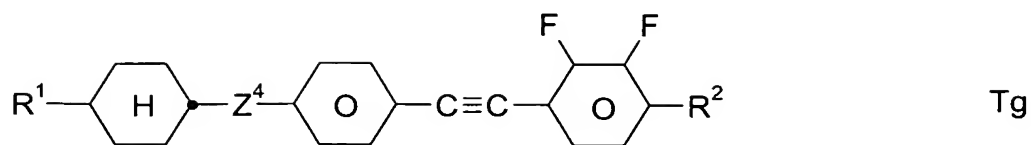


R is an alkyl, alkoxy or alkenyl group having from 1 to 12 carbon atoms, wherein one or more CH<sub>2</sub> groups are each, independently of one another, optionally replaced by -O-, -CH=CH-, -CO-, -OCO- or -COO- in such a way that O atoms are not linked directly to one another, and

L<sup>1</sup>, L<sup>2</sup> and L<sup>3</sup> are independently of each other H or F;

- one or more compounds selected of formulae Ta-Ti,





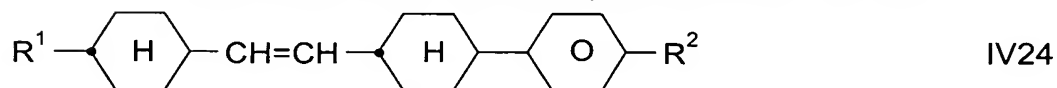
wherein

$R^1$  and  $R^2$  are independently of each other an alkyl, alkoxy or alkenyl group having from 1 to 12 carbon atoms, wherein one or more  $CH_2$  groups are each, independently of one another, optionally replaced by  $-O-$ ,  $-CH=CH-$ ,  $-CO-$ ,  $-OCO-$  or  $-COO-$  in such a way that O atoms are not linked directly to one another,

$Z^4$  is  $-CO-O-$ ,  $-CH_2CH_2-$  or a single bond, and

$L^1$  to  $L^6$  are independently of each other H or F; and

- optionally one or more compounds of formula IV24

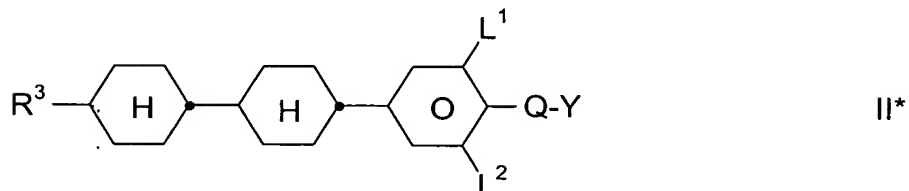
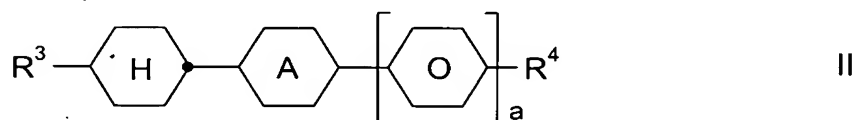


wherein

$R^1$  and  $R^2$  are independently of each other an alkyl, alkoxy or alkenyl group having from 1 to 12 carbon atoms, wherein one or more  $CH_2$  groups are each, independently of one another, optionally replaced by -O-, -CH=CH-, -CO-, -OCO- or -COO- in such a way that O atoms are not linked directly to one another.

Claim 11 (currently amended): A liquid-crystalline medium according to ~~at least one of claims 1 to 10~~ claim 1, wherein said medium comprises

- 5 to 30 % of compounds of formula I;
- 10 to 50 % of compounds selected from formula II and II\*,



in which

A is 1,4-phenylene or trans-1,4-cyclohexylene,

a is 0 or 1,

$R^3$  in formula II is an alkenyl group having from 2 to 9 carbon atoms,

$R^3$  in formula II\* is an alkenyl group with 2 to 7 carbon atoms,

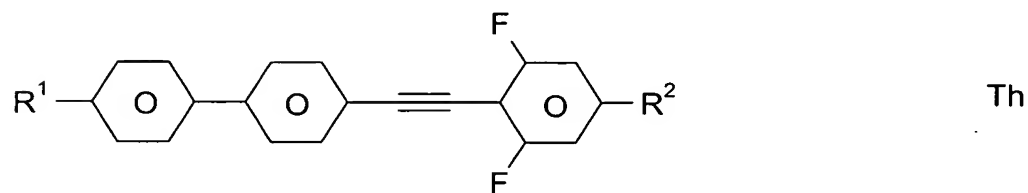
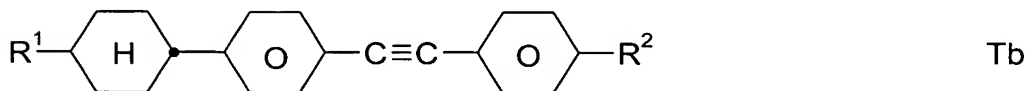
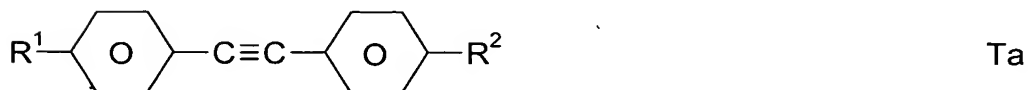
$R^4$  is an alkyl group having 1 to 12 carbon atoms which is unsubstituted, monosubstituted by CN or  $CF_3$  or at least monosubstituted by halogen, and wherein one or more  $CH_2$  groups are each, independently of one another, optionally replaced by  $-O-$ ,  $-S-$ ,  $\text{---}$  (cyclobutane ring)  $\text{---}$ ,  $-CH=CH-$ ,  $-C\equiv C-$ ,  $-CO-$ ,  $-CO-O-$ ,  $-O-CO-$  or  $-O-CO-O-$  in such a way that O atoms are not linked directly to one another,

Q is  $CF_2$ ,  $OCF_2$ , CFH, OCFH or a single bond,

Y is F or Cl, and

$L^1$  and  $L^2$  are independently of each other H or F;

- 7 to 45 % of compounds selected formula Ta, Tb and Th,

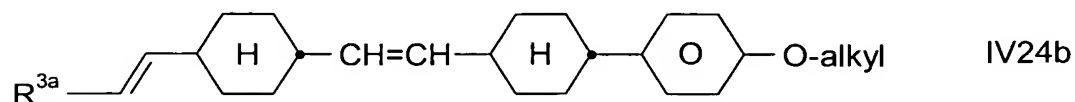
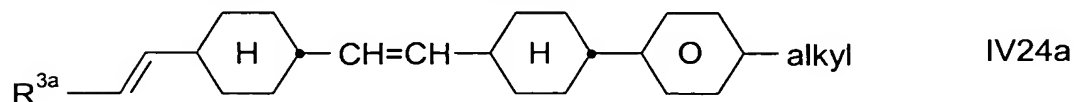


wherein

$R^1$  and  $R^2$  are independently of each other an alkyl, alkoxy or alkenyl group

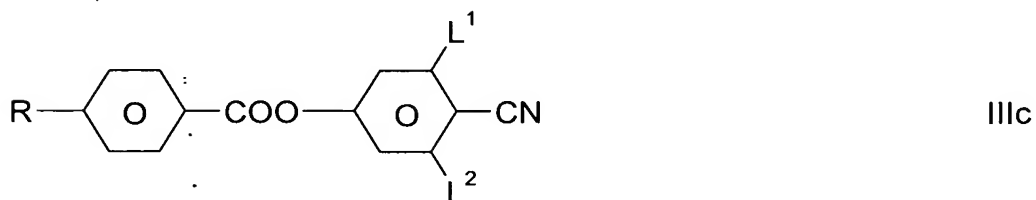
having from 1 to 12 carbon atoms, wherein one or more CH<sub>2</sub> groups are each, independently of one another, optionally replaced by -O-, -CH=CH-, -CO-, -OCO- or -COO- in such a way that O atoms are not linked directly to one another;

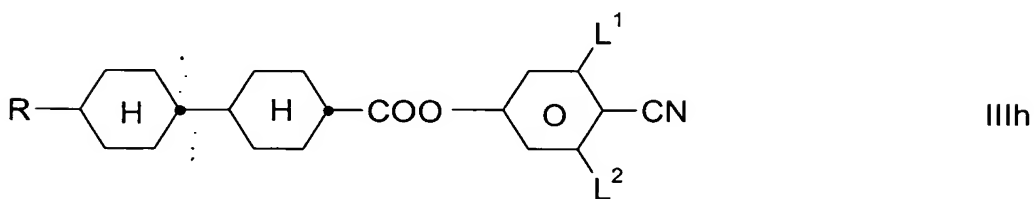
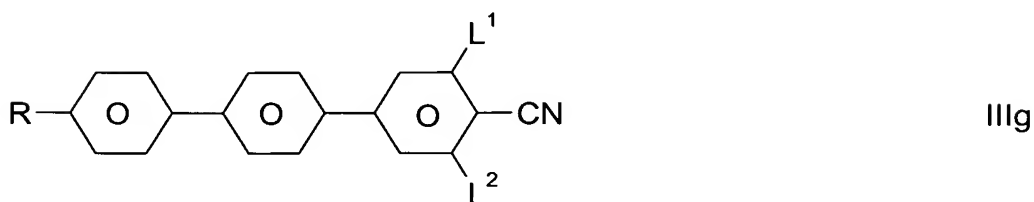
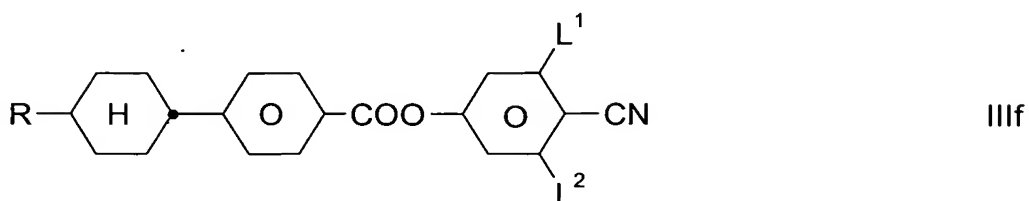
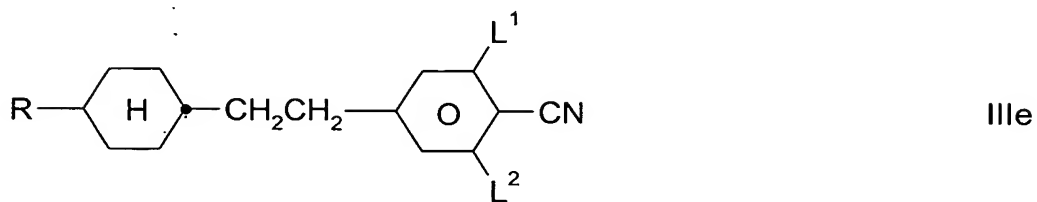
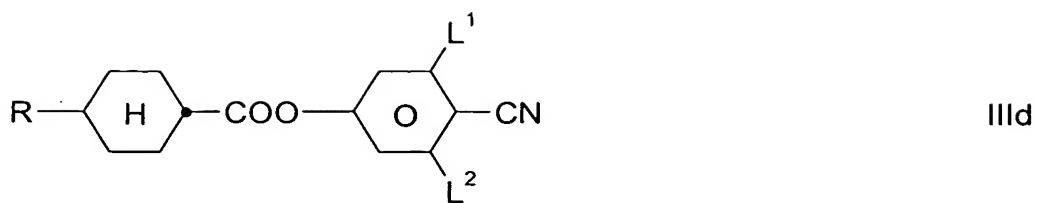
- 2 to 25 % of compounds selected from formula IV24a and IV24b,



wherein R<sup>3a</sup> is H, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub> or n-C<sub>3</sub>H<sub>7</sub> and alkyl is an alkyl group with 1 to 8 carbon atoms; and

- 8 to 40 % of compounds selected from formulae IIIa to IIIh





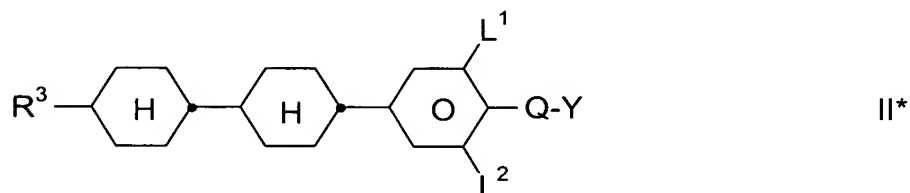
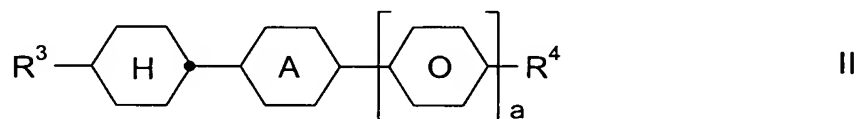
wherein

R is an alkyl, alkoxy or alkenyl group having from 1 to 12 carbon atoms, wherein one or more CH<sub>2</sub> groups are each, independently of one another, optionally replaced by -O-, -CH=CH-, -CO-, -OCO- or -COO- in such a way that O atoms are not linked directly to one another, and

$L^1$ ,  $L^2$  and  $L^3$  are independently of each other H or F.

Claim 12 (currently amended): A liquid-crystalline medium according to ~~at least one of claims 1 to 10~~ claim 1, wherein said medium comprises

- 6 to 20 % of compounds of formula I;
- 10 to 40 % of compounds selected from formula II and II\*,



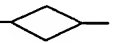
in which

A is 1,4-phenylene or trans-1,4-cyclohexylene,

a is 0 or 1,

$R^3$  in formula II is an alkenyl group having from 2 to 9 carbon atoms,

$R^3$  in formula II\* is an alkenyl group with 2 to 7 carbon atoms,

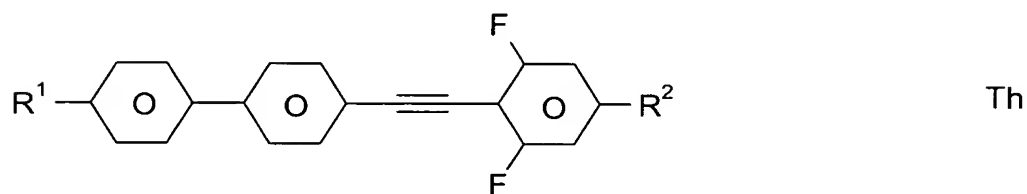
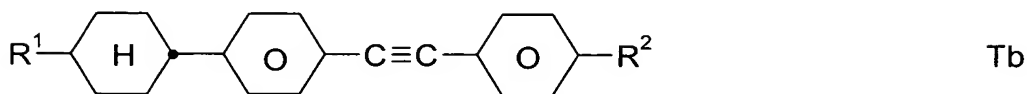
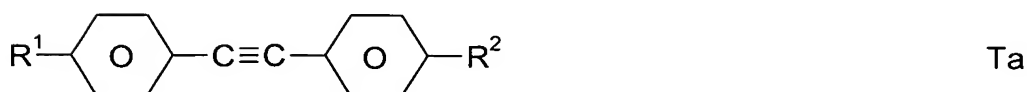
$R^4$  is an alkyl group having 1 to 12 carbon atoms which is unsubstituted, monosubstituted by CN or  $\text{CF}_3$  or at least monosubstituted by halogen, and wherein one or more  $\text{CH}_2$  groups are each, independently of one another, optionally replaced by -O-, -S-, , -CH=CH-, -C≡C-, -CO-, -CO-O-, -O-CO- or -O-CO-O- in such a way that O atoms are not linked directly to one another,

Q is CF<sub>2</sub>, OCF<sub>2</sub>, CFH, OCFH or a single bond,

Y is F or Cl, and

L<sup>1</sup> and L<sup>2</sup> are independently of each other H or F;

- 10 to 30 % of compounds selected formula Ta, Tb and Th,

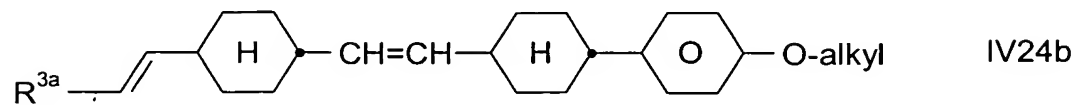
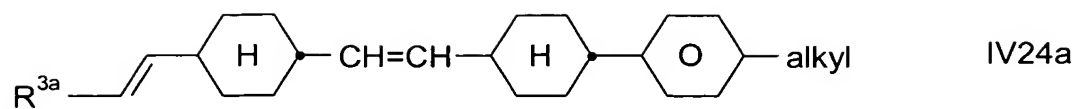


wherein

R<sup>1</sup> and R<sup>2</sup> are independently of each other an alkyl, alkoxy or alkenyl group having from 1 to 12 carbon atoms, wherein one or more CH<sub>2</sub> groups are each, independently of one another, optionally replaced by -O-, -CH=CH-, -CO-, -OCO- or -COO- in such a way that O atoms are not linked directly to one another;

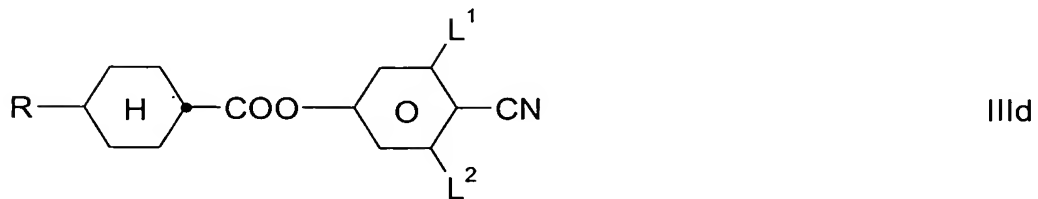
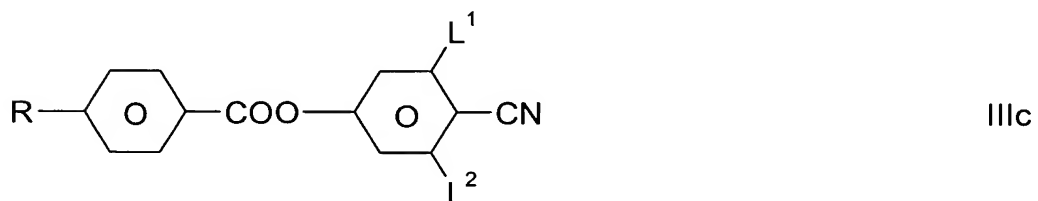
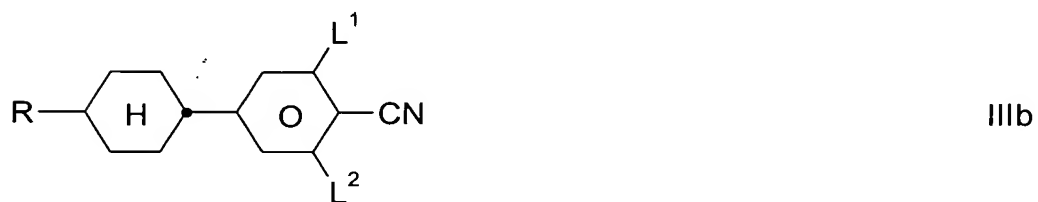
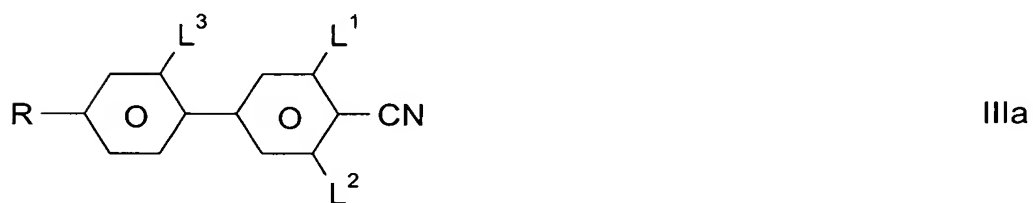
- 3 to 20 % of compounds selected from formula IV24a and IV24b,

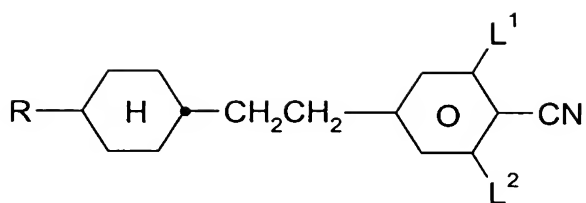




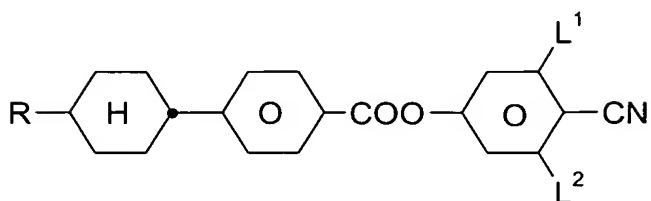
wherein  $R^{3a}$  is H,  $\text{CH}_3$ ,  $\text{C}_2\text{H}_5$  or  $n\text{-C}_3\text{H}_7$  and alkyl is an alkyl group with 1 to 8 carbon atoms; and

- 10 to 30 % of compounds selected from formulae IIIa to IIIh

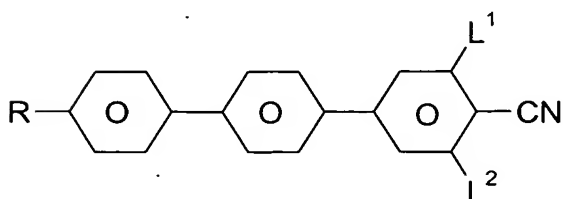




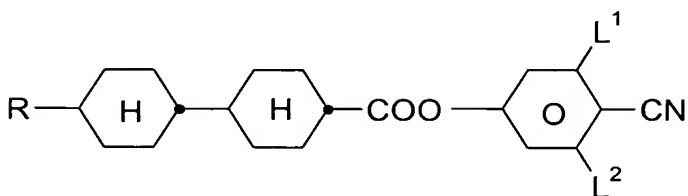
IIIe



IIIf



IIIg



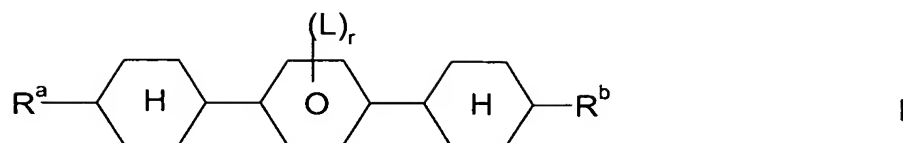
IIIh

wherein

R is an alkyl, alkoxy or alkenyl group having from 1 to 12 carbon atoms, wherein one or more  $\text{CH}_2$  groups are each, independently of one another, optionally replaced by  $-\text{O}-$ ,  $-\text{CH}=\text{CH}-$ ,  $-\text{CO}-$ ,  $-\text{OCO}-$  or  $-\text{COO}-$  in such a way that O atoms are not linked directly to one another, and

$\text{L}^1$ ,  $\text{L}^2$  and  $\text{L}^3$  are independently of each other H or F.

Claim 13 (original): A liquid-crystalline compound of formula I



wherein

$R^a$  is an alkenyl group having from 2 to 9 carbon atoms,

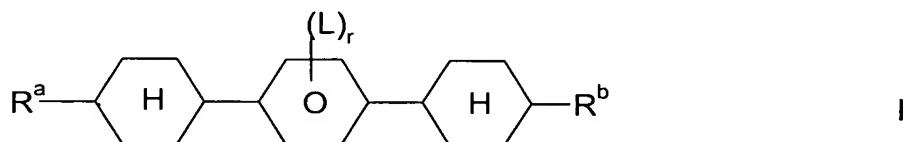
$R^b$  is an alkyl group having 1 to 12 carbon atoms which is unsubstituted, monosubstituted by CN or  $CF_3$  or at least monosubstituted by halogen, and wherein one or more  $CH_2$  groups are each, independently of one another, optionally replaced by  $-O-$ ,  $-S-$ ,  $\text{---}\diamond\text{---}$ ,  $-\text{CH}=\text{CH}-$ ,  $-\text{C}\equiv\text{C}-$ ,  $-\text{CO}-$ ,  $-\text{CO}-\text{O}-$ ,  $-\text{O}-\text{CO}-$  or  $-\text{O}-\text{CO}-\text{O}-$  in such a way that O atoms are not linked directly to one another,

L is, in each occurrence independently, F, Cl, CN or a mono- or polyhalogenated alkyl, alkoxy, alkenyl or alkenyloxy group having up to 3 carbon atoms, and

r is 0, 1, 2, 3 or 4,

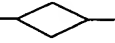
wherein the phenyl ring is substituted by L in 2- and 3-position or in 3- and 5-position or in 2- and 6-position, and/or  $R^b$  is alkenyl with 2 to 9 carbon atoms.

Claim 14 (original): A liquid-crystalline compound of formula I



wherein

R<sup>a</sup> is an alkenyl group having from 2 to 9 carbon atoms,

R<sup>b</sup> is an alkyl group having 1 to 12 carbon atoms which is unsubstituted, monosubstituted by CN or CF<sub>3</sub> or at least monosubstituted by halogen, and wherein one or more CH<sub>2</sub> groups are each, independently of one another, optionally replaced by -O-, -S-, , -CH=CH-, -C≡C-, -CO-, -CO-O-, -O-CO- or -O-CO-O- in such a way that O atoms are not linked directly to one another,

L is F, Cl, CN, CF<sub>3</sub>, OCF<sub>3</sub> or OCH<sub>3</sub>, and

r is 0, 1, 2, 3 or 4,

Claim 15 (currently amended): An electro-optical liquid-crystal display containing a liquid-crystalline medium according to ~~at least one of claims 1 to 12~~ claim 1.

Claim 16 (currently amended): An electro-optical liquid-crystal display containing a liquid-crystalline compound according to ~~at least one of claims 13 to 14~~ claim 13.

Claim 17 (currently amended): A TN or STN liquid-crystal display comprising:

- two outer plates, which, together with a frame, form a cell,
- a nematic liquid-crystal mixture of positive dielectric anisotropy located in the cell,
- electrode layers with alignment layers on the insides of the outer plates,
- a tilt angle between the longitudinal axis of the molecules at the surface of the outer plates and the outer plates of 0 to 30 degrees, and
- a twist angle of the liquid-crystal mixture in the cell from alignment

layer to alignment layer with a value of  $22.5^{\circ}$  -  $600^{\circ}$ , and

- a nematic liquid-crystal mixture comprising
  - a) 15 – 75% by weight of a liquid-crystalline component A consisting of one or more compounds having a dielectric anisotropy of greater than +1.5;
  - b) 25 – 85% by weight of a liquid-crystalline component B consisting of one or more compounds having a dielectric anisotropy of between -1.5 and +1.5;
  - c) 0 – 20% by weight of a liquid-crystalline component D consisting of one or more compounds having a dielectric anisotropy of below -1.5, and
  - d) if desired, an optically active component C in such an amount that the ratio between the layer thickness and the natural pitch of the chiral nematic liquid-crystal mixture is from about 0.2 to 1.3,

wherein said nematic liquid-crystal mixture is as defined in at least ~~one of claims 1 to 12~~ claim 1.